

**REPORT TO: ENVIRONMENT COMMITTEE – 9 DECEMBER 2013**

**REPORT ON: AIR QUALITY PROGRESS REPORT**

**REPORT BY: DIRECTOR OF ENVIRONMENT**

**REPORT NO: 510-2013**

## **1.0 PURPOSE OF REPORT**

- 1.1 To advise Committee of the most recent ratified air quality monitoring data and of the progress being made to improve air quality via the Corporate Air Quality Action Plan.

## **2.0 RECOMMENDATIONS**

- 2.1 It is recommended that committee note the contents of this report and remit the Director of Environment to continue to progress with implementing the measures and actions detailed within the AQAP.

## **3.0 FINANCIAL IMPLICATIONS**

- 3.1 There are no direct financial implications arising from this report.

## **4.0 MAIN TEXT**

- 4.1 Reference is made to Article V of the Environmental Services and Sustainability committee of 20th February 2006, which approved the establishment of an Air Quality Management Area in the city and the basis of the necessary air quality monitoring and measures the Council required to implement to work towards meeting the National Air Quality Standards (NAQS).
- 4.2 Further reference is made to Article III of the Environment committee of 11<sup>th</sup> February 2013 which reported the key findings of the Updating and Screening Assessment and previous years' monitoring data. This report also updated progress with the 2011/2012 Action Plan progress and outlined the status of the measures being implemented via the council's Air Quality Action Plan.
- 4.3 Of the seven NAQS pollutants, there is no risk of exceeding the statutory objectives for benzene, carbon monoxide, 1,3-butadiene, sulphur dioxide and lead. The Environment Department continues to closely monitor the levels of Nitrogen Dioxide (NO<sub>2</sub>) and Particulates (PM<sub>10</sub>) at specific areas within the city. The latest set of ratified data (for 2012) along with progress in implementing the measures contained in Air Quality Action Plan have been submitted to the Scottish Government and SEPA as statutory consultees within the Progress Report for 2013. The main points to note from the monitoring are:
- five of the six real-time monitors for Nitrogen Dioxide have shown an average reduction of 12.6% in the annual mean levels of NO<sub>2</sub> since 2011;
  - an increase in the annual mean NO<sub>2</sub> level was recorded in the monitor at Whitehall Street since 2011;
  - all real-time monitors for Particulates have shown a reduction in the annual mean levels of PM<sub>10</sub> since 2011;
  - of the 95 NO<sub>2</sub> diffusion tubes located within the city, 27 measured an exceedance of the NAQS annual mean level of 40µg/m<sup>3</sup> (68 were within the limits);

- concentrations of PM<sub>10</sub> recorded at all 13 monitoring locations during 2012 were all well below the 2004 NAQS limit of 40µg/m<sup>3</sup>. There were three exceedances of the more stringent Scottish annual mean objective of 18µg/m<sup>3</sup> recorded at the units at Meadowside, Stannergate and Seagate; and
- The only location where the 1-hour mean NO<sub>2</sub> objective is exceeded is on Lochee Road and the majority of the 1-hour mean exceedances occur during winter months at peak traffic times on weekdays. Further analyses is being undertaken to inform potential future mitigation measures.

4.4 Whilst the latest ratified data for the real-time monitors generally shows a reduction in pollution concentrations since 2011, there remain a number of exceedances of the NAQS for both NO<sub>2</sub> and PM<sub>10</sub>. Year on year fluctuations in concentrations are common, so reliable trends are best judged using at least five years of data. Consequently monitoring will continue.

4.5 In order to improve air quality within the city and work towards compliance with the NAQS objectives, a number of measures detailed in the Air Quality Action Plan are being progressed and are shown in see Appendix 1 of this report. The main measures that were progressed in 2012/13 were:

- Alterations to the North-west arterial route to free up road space and reduce congestion;
- Upgrade of the Urban Traffic Management Control (UTMC) system to improve traffic flows and reduce congestion in two problem areas at Lochee Road and the Seagate;
- Improvements to the Bus Fleet managed by National Express (Dundee) and Stagecoach;
- Improvements carried out to DCC fleet, including electric vehicles and the provision of charging infrastructure;
- New Freight Routing Tool introduced by TACTRAN; and
- Supplementary Planning Guidance on Air Quality developed.

## 5.0 POLICY IMPLICATIONS

5.1 This report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-poverty, Equality Impact Assessment and Risk Management. There are no major issues.

## 6.0 CONSULTATIONS

6.1 The Chief Executive, Director of Corporate Services, Head of Democratic and Legal Services and Director of City Development have all been consulted in relation to this report.

## 7.0 BACKGROUND PAPERS

7.1 None.

Ken Laing  
**Director of Environment**

Kenny Kerr  
**Head of Environmental Protection**

27<sup>th</sup> November 2013

## TRAFFIC MEASURES

No.	Measure	Focus	Lead Authority	Planning Phase	Implementation Phase	Targets/ Indicators	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months (Jan'12 - Dec'12)	Estimated Completion Date	Comments relating to emission reductions
1	<b>Measure M1:</b> Existing Road Infrastructure Improvements	<ul style="list-style-type: none"> <li>▶ City Centre Improvements - Union St</li> <li>▶ NW Arterial Route Improvement - Lochee Rd</li> <li>▶ City Centre Improvements - Meadowside</li> <li>▶ Arterial Route Improvements - Stannergate</li> </ul>	DCC City Development Department (Transportation Division)			Implementation of improvements	High	Union Street improvements completed December 2011. Two way traffic was maintained. Pavement widths were altered and the bus stops have been removed to reduce congestion and bus idling.	<p>Alterations carried out at Lochee Road/Rankine Street in February 2012 removed central reservation to free up road space and reduce congestion</p> <p>Trial of lane closure 26/1/12 lane closure for 2 weeks. Longer term trial being prepared and costed.</p>	<p>Union Street improvements completed 2011</p> <p>Completed 2012</p> <p>2014</p> <p>2014</p>	<p>To continue real time monitoring in Union Street to measure improvements. Annual Mean NO<sub>2</sub> and PM<sub>10</sub> were below the threshold in 2012, but NO<sub>2</sub> concentrations increased in Nethergate and Whitehall St.</p> <p>Annual Mean NO<sub>2</sub> concentrations and number of exceedences reduced in 2012 but still above the threshold</p>

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2	<b>Measure M2:</b> DCC will enhance the Urban Traffic Management and Control (UTMC) system to reduce congestion	<ul style="list-style-type: none"> <li>▶ Real-time traffic monitoring.</li> <li>▶ Improved control regime to smooth out peak traffic.</li> </ul>	DCC City Development Department (Transportation Division)	Implementation of UTMC improvements and carry out annual review to measure % reduction in congestion in line with target (TACTRAN Capital Grant funding for expanded automation of journey time monitoring to allow activation of traffic management systems to alleviate congestion.	2013	<ul style="list-style-type: none"> <li>▶ 10% reduction in congestion (journey times) in targeted areas during peak times before and after implementation of measure.</li> <li>▶ Annual review of impact</li> </ul>	Small	Scheme designed to expand UTMC to two congested junctions in Lochee Rd AQ hotspots. Programmed for installation by end March 2012	<ul style="list-style-type: none"> <li>▶ Schemes now implemented and the traffic management improvements will be assessed in terms of AQ improvements by Environment Service.</li> <li>▶ UTMC to be implemented by March 2013 which will see further traffic management enhancements</li> <li>▶ Seagate / Commercial Street traffic light refurbishment to improve bus and traffic flows through this AQ hotspot on the main bus corridor. Coupled with increased enforcement of waiting restrictions to reduce congestion</li> <li>▶ Successful trial of bluetooth journey time monitoring of western arterial route, Possibility of expansion to include AQ hotspots.</li> </ul>	2012+	
				Improve traffic flow/ management strategies in Lochee Rd- introduce MOTES	2013						
				Paramic/AIRE modelling of key junctions at Kingsway/ Forfar Road & Lochee Road Corridor to test option improvements	2013						

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3	<b>Measure M3:</b> DCC to identify partnership and funding to continue benefits of Smarter Choices/Smarter Places: Dundee Travel Active Programme	<ul style="list-style-type: none"> <li>▶ Identify and implement wider partnership to continue programme.</li> <li>▶ Identify funding.</li> </ul>	DCC City Development Department (Transportation Division)			<ul style="list-style-type: none"> <li>▶ Increase % of people who walk and cycle to work in Dundee.</li> <li>▶ Identify funding for education</li> </ul>	Small	<ul style="list-style-type: none"> <li>▶ Social Marketing Campaign undertaken - focussing on the Lochee Road corridor (Reported in AQAP 2012, Appendix 1).</li> <li>▶ DCC initiated partnership with a local social enterprise to develop a Behavioural Change Centre of Excellence</li> <li>▶ Designed a programme of in-class workshops to promote sustainable and active travel in 11 primary schools</li> <li>▶ Established a new Bike Boost programme to promote cycling to work and other journeys.</li> <li>▶ DCC is actively working to secure funds for future investment in Dundee Travel Active.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Broughty Ferry has had Personalised Travel Planning delivered by Social Enterprise Positive Steps (awaiting publication of summary report).</li> <li>▶ DCC staff travel policy now being implemented and this will further encourage modal shift to active modes.</li> <li>▶ Investigating a school based travel behaviour change programme for 2013.</li> <li>▶ 19.7% of people estimated to be walking or cycling to work in Dundee. The data is published by the Scottish Government every two years. The 19.7% data is taken from the Scottish Household Surveys undertaken in 2009 and 2010. The target in the City Development Service Plan 2012-2017 is 25%.</li> </ul>	2012+ on-going scaled down	-
				Behavioural Change Primary School programme to promote sustainable travel options in all primary schools in Dundee.	April to June 2014					Jun-14	
				3 "Doctor Bike" Safety Events planned for the City Square	2013/14						

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4	<b>Measure M4:</b> DCC will introduce measures to improve bus services and reduce emissions	<ul style="list-style-type: none"> <li>▶ Statutory Bus Quality Partnership.</li> <li>▶ Voluntary Bus Quality Partnership</li> </ul>	DCC City Development Department (Transportation Division)		2011+	<ul style="list-style-type: none"> <li>▶ Identification of new corridors that directly benefit air quality.</li> <li>▶ Average age fleet and Euro category, fuel type</li> <li>▶ Fleet age, Euro class, fuel type</li> <li>▶ Lobby Scottish Government for fuel duty rebates for low carbon fleet</li> </ul>	Medium	Opportunities are being investigated as part of Air Quality Low Emission Charter	<ul style="list-style-type: none"> <li>▶ DCC looking at Hydrogen Fuel cell opportunities for buses in a collaborative approach through the Scottish Cities Alliance</li> <li>▶ National Express Dundee applied to Scottish Government's Green Bus Fund 2 and invest in hybrid engine technology</li> <li>▶ Stagecoach invested in 6 new Euro V buses on their Dundee to Blairgowrie route (Service 57)</li> <li>Bus Service Operators Grant (BSOG) changes from April 2012 will reward use of cleaner fuels and incentivise the use of cleaner vehicles.</li> </ul>	<p>Medium Term</p> <p>2012+ (Short Term)</p> <p>2012+</p>	

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4	<b>Measure M4 (Cont):</b> DCC will introduce measures to improve bus services and reduce emissions	<p>► Tackling Idling Bus Emissions</p> <p>► Low Emission Zones (LEZ) for buses</p>	<p>DCC City Development Department (Transportation Division)</p> <p>DCC City Development Department (Transportation Division)</p>	<p>National Express Dundee will introduce nine Diesel Electric Hybrid buses into their fleet in April / May 2013 as per Green Bus Fund 2 bid success ECO Stars Dundee Fleet Management Recognition Scheme being introduced</p> <p>Bus Emission Modelling being undertaken to test likely improvements associated with various scenarios including possible LEZ for buses by 2017</p>	<p>2013</p> <p>2013/14</p> <p>2011+</p> <p>2013</p>	<p>► Traffic Regulation Conditions within the city centre.</p> <p>► 'No-idling' signage on bus routes.</p> <p>► Driver Training/ Awareness Raising</p> <p>► Investigate the Traffic Regulation Conditions for LEZ in City Centre.</p> <p>► Route choice for clean buses see Park &amp; Ride facilities</p>	<p>Small</p> <p>High</p>	<p>► Opportunities are being investigated as part of Air Quality Low Emission Charter (Reported in AQAP 2012, Appendix 2).</p> <p>► National Express Dundee and Stagecoach have invested in in-vehicle monitoring systems and vehicles with auto-shutoff technology</p> <p>Opportunities are being investigated as part of Air Quality Low Emission Charter. (Reported in AQAP 2012, Appendix 2)</p>	<p>2012+</p> <p>Med Term, 2015-2016+</p>		

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5	<b>Measure M5:</b> DCC will explore provision of Park and Ride facilities that do not have adverse impact on air quality	► Provision of Park and Ride (P&R) facilities	DCC City Development Department (Transportation Division) & Tayside and Central Scotland Transport Partnership (TACTRAN)	► Dundee South P&R site at Tay Bridgehead now confirmed by NE Local Plan reporter and Dundee West selected as Wright Avenue. Both sites being taken forward with detailed design and Dundee West has been through pre - planning application consultation and detailed planning consent will be applied for in mid 2013.  ► DCC, Fife Council, TACTRAN and SESTRAN actively investigating funding opportunities to deliver the facilities 2014 / 2015.	2013-15	► Report on identification and prioritisation of P&R facilities  ► Implementation of scheme  ► Passenger numbers	Medium	Site at Wright Avenue selected as preferred location for P&R at Dundee West and at site on south side of Tay Road Bridge identified for Dundee South, awaiting NE Local Plan inquiry	Dundee South P&R site at Tay Bridgehead now confirmed by NE Local Plan reporter and Dundee West selected as Wright Avenue. Both sites being taken forward with detailed design and Dundee West has been through pre - planning application consultation and detailed planning consent will be applied for in mid-2013.	Med Term 2014+	

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6	<b>Measure M6:</b> DCC will introduce measures to reduce emissions from Heavy Goods Vehicles	<ul style="list-style-type: none"> <li>▶ Perth &amp; Dundee Retail Freight Consolidation Centre</li> <li>▶ Freight Quality Partnership (FQP)</li> </ul>	<p>DCC City Development Department Transportation Division)&amp; TACTRAN</p> <p>DCC City Development Department Transportation Division)&amp; TACTRAN</p>	<p>A freight routing planning tool will be launched by TACTRAN which should encourage HGVs to follow appropriate routes</p> <p>Dundee is participating in a pan European project (ENCLOSE) investigating city logistics with carbon and emission reduction as important factors under investigation</p> <p>ECO Stars Dundee Fleet Management Recognition Scheme being introduced</p>	<p>2011+</p> <p>Jan-13</p> <p>2013</p>	<ul style="list-style-type: none"> <li>▶ Implementation of scheme</li> <li>▶ Vehicle fleet in the AQMA</li> <li>▶ Study for the alternate system of retail freight</li> <li>▶ Implementation of partnership</li> <li>▶ Changes in hourly profile of HGVs in AQMA</li> </ul>	<p>Small</p> <p>Small</p>	<p>Opportunities are being investigated as part of Air Quality Low Emission Charter (See AQAP2012 Appendix 2)</p> <p>Dundee is included as part of Tactran's Regional FQP</p>	<ul style="list-style-type: none"> <li>▶ Opportunities are being investigated as part of Air Quality Low Emission Charter.</li> <li>▶ Dundee is included as part of TACTRAN's Regional Freight Quality Partnership.</li> <li>▶ A freight routing planning tool will be launched in 2013 by TACTRAN which should encourage HGVs to follow appropriate routes</li> <li>▶ Dundee is participating in a pan European project investigating city logistics with carbon and emission reduction as important factors under investigation.</li> </ul>	<p>2012+</p> <p>Long term</p>	

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7	<b>Measure M7:</b> DCC will seek improvements in emissions standards, including NO2 and PM <sub>10</sub> for the council fleet and public service vehicles	<ul style="list-style-type: none"> <li>▶ Development of Green Procurement Strategy</li> <li>▶ To set target for Euro category/fuel type</li> </ul>	<ul style="list-style-type: none"> <li>▶ DCC Corporate Fleet Manager</li> <li>▶ DCC Environment Department</li> </ul>	<p>The development of an Asset Management Plan which will incorporate environmental issues as part of the replacement criteria</p> <p>Initial discussions for 2013/14 vehicle/plant replacement programme has identified improved emissions as a high priority</p> <p>Participation in ECO Stars Dundee-Fleet Management Recognition Scheme</p>	<p>2013/14</p> <p>2013/14</p> <p>2013</p>	<ul style="list-style-type: none"> <li>▶ Approval of Strategy (Asset Management Plan)</li> <li>▶ Average age fleet and Euro category, fuel type</li> </ul>	Small	<ul style="list-style-type: none"> <li>▶ New Corporate Fleet Manager appointed December 2011</li> <li>▶ New Fleet Section will develop a reporting procedure to compare replacement vehicles in relation to emission improvements</li> <li>▶ New Fleet Section will create a replacement plan for all vehicles to maintain fleet age profile</li> <li>▶ Current make up of the waste collection fleet is 12 x Euro 3, 17 x Euro 4 and 23 x Euro 5. Fleet is continually moving towards newest Euro Category - See Measure 14</li> </ul>	<p>The Fleet section has replaced over 50 vehicles so far in 2012 all with improved emissions standards, with another 10 or so vehicles to arrive by the end of the financial year)</p>	2012+	

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8	<b>Measure M8:</b> DCC in consultation with the Taxi Liaison Group will explore means of reducing emissions from taxis and private car hire vehicles in AQMA	<ul style="list-style-type: none"> <li>▶ Enforce No idling for taxis</li> <li>▶ Increase cleaner taxis</li> </ul>	<ul style="list-style-type: none"> <li>▶ DCC Support Services</li> <li>▶ DCC City Development Department</li> <li>▶ Tayside Police</li> </ul>	<p>As part of Air Quality Low Emission Charter, continue to investigate opportunities for: Traffic Regulation Conditions for 'No Idling' of taxis;</p> <p>Explore the potential of introducing Licensing Conditions for minimum taxi Euro category for certain classes of vehicles</p> <p>Provide 'No Idling' street signage; Monitoring for idling.</p> <p>DCC also looking at collaborative work with taxi operators in developing an Electric Vehicle trial for taxis in Dundee</p>	2013/2014+	<ul style="list-style-type: none"> <li>▶ Traffic Regulation Conditions for 'No Idling' of taxis</li> <li>▶ Explore the potential of introducing Licensing Conditions for minimum taxi Euro category for certain classes of vehicles</li> <li>▶ Provide 'No Idling' street signage</li> <li>▶ Monitoring for idling in place</li> </ul>	Medium	<ul style="list-style-type: none"> <li>▶ Opportunities are being investigated as part of Air Quality Low Emission Charter (See AQAP 2012 Appendix 2).</li> <li>▶ Education Transport contracts to be let with condition that all vehicles must be euro 4 compliant</li> </ul>	<ul style="list-style-type: none"> <li>▶ Education Transport contracts were let with condition that all vehicles must be Euro 4 compliant</li> <li>▶ Approximately 400 Taxi / PHC driver training sessions were made available - limited uptake...</li> </ul>	2012+	
9	<b>Measure M9:</b> DCC will investigate to initiate a Roadside Emission Testing (RET) scheme inside the AQMA and routes leading to AQMA	<ul style="list-style-type: none"> <li>▶ To investigate into the establishment of a programme of RET in the AQMA</li> </ul>	<ul style="list-style-type: none"> <li>▶ VOSA</li> <li>▶ Tayside Police</li> <li>▶ DCC Environment Department.</li> </ul>	To seek funding to undertake feasibility study of introduction of RET	2013+	<ul style="list-style-type: none"> <li>▶ Approval/non-approval of RET scheme</li> <li>▶ Traffic Regulation Conditions if necessary.</li> </ul>	Small	No progress to date.	No progress to date, funding being sought to undertake feasibility study in 2013.	2013+	

POLICY AND PARTNERSHIP WORKING MEASURES

10	<p><b>Measure M10:</b> DCC will ensure local air quality is fully integrated into the Local Development Plan (LDP) process and development scenarios are appropriately assessed with respect to the potential impacts on air quality</p>	<p>► Provide AQ policy within Local Development Plan with commitment to improve air quality</p> <p>► Produce air quality Supplementary Planning Guidance (SPG)</p>	<p>► DCC City Development (Planning Division)</p> <p>► DCC Environment Department.</p>	<p>Supplementary Planning Guidance drafted. Report to go to City Development Committee following adoption of the Local Development Plan seeking approval as statutory planning guidance</p>	2014	<p>► Adoption of Local Development Plan</p> <p>► Adoption of Air Quality SPG</p>	Small	<p>► Main Issues Report Consultation exercise completed 2/12/2011. Proposed Plan by late autumn 2012.</p> <p>► Method of integrating AQ into SPG being considered</p>	<p>Air Quality Policy incorporated into draft LDP. Air Quality Supplementary Planning Guidance drafted.</p>	2013 +	Mitigation measures introduced as appropriate.
11	<p><b>Measure M11:</b> DCC will ensure effective co-ordination between climate change and air quality strategies and action plan measures</p>	<p>► Strategy to be developed to improve co-ordination between climate change and air quality strategies and action plan measures</p>	<p>► DCC Corporate Planning Department</p> <p>► DCC City Development - (Property Division)</p> <p>► DCC Environment Department.</p>		2011+	<p>► Implementation of co-ordination strategy</p> <p>► Reciprocal attendance of air quality and climate change working groups/steering committees</p>	Small	Currently being developed.	<p>Procedure implemented for exchange of information between the Climate Change Board &amp; Corporate Air Quality Steering Group</p>	2012+	
12	<p><b>Measure M12:</b> DCC will continue its active involvement and support of TACTRAN</p>	<p>► Regularly attend meetings</p> <p>► Provide feedback</p> <p>► Provide necessary support</p>	<p>► DCC City Development Department. (Transport Division)</p>	<p>The Council will continue to support TACTRAN and focus on implementation of Regional Transport Strategy throughout the period of this plan</p>	On-going	<p>► Number of TACTRAN policies and proposals implemented</p>	n/a	DCC will continue to support TACTRAN and focus on implementation of Regional Transport Strategy	<p>The Council will continue to support TACTRAN and focus on implementation of Regional Transport Strategy throughout the period of this plan.</p>	On-going	

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<b>LEADING BY EXAMPLE MEASURES</b>											
13	<p><b>Measure M13:</b></p> <p>► DCC will promote the uptake and use of cleaner and/or alternative fuels where possible for transport</p> <p>► DCC will explore the development of electric charging point infrastructure</p>	<p>► Determine strategy/advise note and annually review content</p> <p>► Install Electric Charging Facilities in Car Parks</p>	DCC City Development Department (Transportation Division)	See Measure 7	2013/14 +	<p>► List of any promotion campaigns planned / implemented</p> <p>► Number / proportion of cleaner vehicles within fleets or clean fuels infrastructure in each financial year</p> <p>► Number of electric charging points installed</p>	Small	<p>► See Measures 7 and 14</p> <p>► Electric vehicle charging station infrastructure for council vehicles is to be implemented by end June 2012</p> <p>► Electric Charging points to be installed in underground car park (below city square)</p>	<p>► Electric vehicle charging station infrastructure for council vehicles has been implemented with Electric Charging points installed in underground car park (below City Square.</p> <p>► Pool EVs now available for city centre DCC staff and further expansion now being implemented across several DCC Multi Storey Car Parks and out of city centre DCC offices</p> <p>► Also investigating alternative Low Carbon Vehicle technologies i.e. Hydrogen Fuel cells</p> <p>► 8 Electric vehicle charging stations installed by DCC (double-headed)</p>	2012+ on-going	
14	<p><b>Measure M14:</b></p> <p>DCC will establish and implement a rolling programme for replacing older more polluting vehicles with newer cleaner vehicles, which comply with the prevailing EURO standard</p>	► Development of Green Procurement Strategy	► DCC Corporate Fleet Manager	See Measure 7 & 13 with older more polluting vehicles being targeted	2011+	<p>▣ Number / proportion of new/improved vehicles within fleets in each financial year</p>	Small	<p>► New Corporate Fleet Manager appointed December 2011.</p> <p>► Procurement of vehicles is through Scotland Excel Framework which gives consideration to Green Credentials. 2011 saw the introduction of 6 electric vehicles with a further 6 to follow by end March 2012</p> <p>► See Measure 7</p>	<p>The Fleet section has replaced over 50 vehicles so far in 2012/13 all with improved emissions standards, with another 10 or so vehicles, to arrive by the end of the financial year.</p>	2012+	

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15	<b>Measure M15:</b> DCC will improve the Council's vehicle fuel consumption efficiency by better management of fleet activities	<ul style="list-style-type: none"> <li>► Develop fleet management plan to improve fuel efficiency.</li> <li>► Investigate fleet activities in relation to pollution hotspots e.g. waste management fleet routes</li> </ul>	<ul style="list-style-type: none"> <li>► DCC Corporate Fleet Manager</li> <li>► DCC Environment Department</li> </ul>	See Measures 7,13,14 . Use of driver style module in tracking system to be developed. Fuel usage to be included in future reporting to departments	2011+	<ul style="list-style-type: none"> <li>► Implementation of smarter driver programme</li> <li>► Preparation / Implementation of Fleet management plan</li> <li>► 10% reduction by 2013 for staff business travel and Corporate Fleet</li> </ul>	Small	<ul style="list-style-type: none"> <li>► New Fleet Section still under development.</li> <li>► Environment Department LGV drivers have undertaken SAFED (Safe &amp; Fuel Efficient Driving) as part of their decision driving training and there is a proposal to roll this out across all council drivers</li> <li>► New computerised Fleet Management Systems to be introduced will help monitor fuel use across the council. Fuel saving measures are being trialled in vehicles at the moment including Throttle Intervention Systems and Gear Box Prognostics</li> </ul>	<ul style="list-style-type: none"> <li>► Fleet Section are working with telematic company to improve information on reporting driving styles.</li> <li>► Fleet section are beginning to develop action plan for rolling out Routesmart to plan routes for all council vehicles to assist with reducing mileage.</li> <li>► Fuel cards have been introduced to reduce mileage for RCV's in the east of the city.</li> </ul>	2012+	
16	<b>Measure M16:</b> DCC will promote options for better travel planning amongst Dundee City Council employees	<ul style="list-style-type: none"> <li>► Review DCC Travel Plan</li> <li>► DCC to investigate use of annual survey on how/what modes of transport employees use to travel to work</li> </ul>	DCC City Development (Transportation Division)	Sustainable Travel Officer (Fixed Term) unlikely to proceed in the short -term. Alternative mechanisms for All Staff Travel Habit Survey being considered (Survey Monkey)	2011+	<ul style="list-style-type: none"> <li>► Implementation of DCC Travel Plan &amp; review of progress with targets</li> <li>► 10% reduction by 2013 in staff business travel</li> <li>► % DCC employees walking/cycling to work</li> </ul>	Small	<ul style="list-style-type: none"> <li>► Staff Travel Policy adopted Autumn 2011. This includes CO2 usages for lease vehicles</li> <li>► DCC senior managers will effectively implement staff travel policy</li> </ul>	<ul style="list-style-type: none"> <li>► Once a fixed term Sustainable Travel Officer is appointed - the issue of staff travel habits survey will be revisited.</li> <li>► The staff travel policy is now coming on stream, and is encouraging innovation in terms of pool fleet and public and active travel by DCC officers / management to support staff travel.</li> </ul>	2012+	

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17	<b>Measure M17:</b> DCC will continue to promote and encourage their employees to consider the use of bicycles in their daily duties by providing cycle usage mileage	<ul style="list-style-type: none"> <li>† ► Continue to investigate and develop the use of various incentive schemes</li> <li>► Develop cycling strategies</li> <li>► DCC to investigate use of annual survey on how/what modes of transport employees use to travel to work</li> </ul>	DCC City Development (Transportation Division)		2011+	<ul style="list-style-type: none"> <li>► % DCC employees walking/cycling to work</li> <li>► Incorporate cycling measures within DCC Travel Plan in line with the new DCC Cycling Strategy to be developed</li> </ul>	Small	<ul style="list-style-type: none"> <li>► Get Cycling engaged to deliver cycling initiatives at DCC and other major employers in Dundee.</li> <li>► Improved cycling facilities provided at Dundee House (Dundee City Council Headquarters) and other Council properties.</li> </ul>	<ul style="list-style-type: none"> <li>► Bike Boost and Cycle to Work initiatives delivered over the summer of 2012 to encourage staff to consider cycling.</li> <li>► Staff Travel Policy implementation still at early stages</li> </ul>	2012+	
18	<b>Measure M18:</b> DCC will assess the Council's energy needs, make recommendations and implement reductions of carbon emissions which result in corresponding reductions of NO <sub>2</sub> and PM <sub>10</sub> .	<ul style="list-style-type: none"> <li>† ► DCC to implement annual energy reduction action plan</li> </ul>	DCC City Development (Property Division)	New annual aspirational reduction target of 5% until 2020	2013+	► 10% reduction by 2013	Small	The Climate Change Board continues to implement the Council's Carbon Management Plan and current energy management projects. However, while there are a number of initiatives that when fully implemented should realise reductions in our CO <sub>2</sub> emission, the current performance is not consistently improving. The agreed procedural arrangements to enable the Council to comply with the new mandatory UK-wide Carbon Reduction Commitment - Energy Efficiency Scheme have been implemented and the Councils reported Total Footprint Emissions for property are 38,471 tonnes of CO <sub>2</sub> .	The Climate Change Board continues to implement the Council's Carbon Management Plan and current energy management projects. Revision to the Carbon Management Plan has been agreed by the Climate Change Board & Council Management Team including new annual aspirational reduction targets of 5% until 2020. The Councils reported CRC emissions are 34,267 tonnes of CO <sub>2</sub>	On-going	

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<b>EDUCATION AND COMMUNITY MEASURES</b>											
19	<b>Measure M19:</b> DCC to promote and support localised energy generation that doesn't compromise Air Quality in private households	<ul style="list-style-type: none"> <li>▶ Determine strategy/advise note and annually review content</li> </ul>	<ul style="list-style-type: none"> <li>▶ DCC Housing Department</li> <li>▶ Solar Cities</li> </ul>		2011+	<ul style="list-style-type: none"> <li>▶ List of any promotion campaigns planned/ implemented</li> </ul>	Small	<ul style="list-style-type: none"> <li>▶ Solar PV – Annual 25,055kg C02 (nominated installers calculated figures)</li> <li>▶ Solar thermal – Annual 197 kg C02 (nominated installers calculated figures)The above figures are all annual savings as not all installation dates have been collected yet to allow calculation of the actual amount saved within the project period.</li> <li>▶ Participant in Maryfield and Coldside areas CO<sub>2</sub> reduction <ul style="list-style-type: none"> <li>▶ Groups pending start date = 59</li> </ul> </li> <li>▶ Groups working with = 23</li> <li>▶ Groups Complete= 2</li> <li>▶ Total number of people engaged = 853</li> </ul>	Solar PV - Annual 25,055kg C02 (nominated installers calculated figures). Solar thermal - Annual 197 kg C02 (nominated installers calculated figures). The above figures are all annual savings as not all installation dates have been collected yet to allow calculation of the actual amount saved within the project period. Participant in Maryfield and Coldside areas CO2 reduction: Groups pending start date = 59 Groups working with = 23 Groups Complete = 2 Total number of people engaged = 853	2012+	
20	<b>Measure M20:</b> DCC will provide the public with relevant air quality information.	<ul style="list-style-type: none"> <li>† Investigating the potential for uptake of an air pollution information system, such as Air Alert</li> <li>▶ Improvements to AQ website information</li> <li>▶ Make up to date air quality information available to the public through Councils digital website</li> </ul>	<ul style="list-style-type: none"> <li>▶ DCC Environment Department</li> <li>▶ DCC City Development (Transportation Division)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Complete improvements to AQ website</li> <li>▶ Develop Database to enable DCC staff to better manage large volume of AQ data and make it more readily available to stakeholders</li> </ul>	2013  2013/14	<ul style="list-style-type: none"> <li>▶ Investigate funding sources</li> <li>▶ Implement Air Alert or similar service</li> <li>▶ Improved rating of website in peer review</li> <li>▶ Make AQ information available through Council's website</li> <li>▶ Real Time Travel Information</li> </ul>	Small	<ul style="list-style-type: none"> <li>▶ Possible funding to improve air quality pages on the Council Website has been identified.</li> <li>▶ The Scottish Government will be taking forward their "Know &amp; Respond" service linked to the new air quality index in 2012. This allows people with respiratory conditions to be alerted when moderate and high pollution levels are forecast. The Council intend to provide a link and information about this service on the web-site when available.</li> <li>▶ No Progress re improved rating of website.</li> <li>▶ Real-time pollutant monitoring concentrations are available from the Scottish Air Quality Website. The Council intend to provide a link on the web-site to this service.</li> <li>▶ No progress on provision of real-time information on pollution levels to assist traffic management through pollution hotspots.</li> </ul>	<ul style="list-style-type: none"> <li>▶ The new AQ webpages are still in the process of being constructed however in the meantime minor amendments have been made to the current website to ensure that information is accurate and up to date.</li> <li>▶ A link to the 'Know &amp; Respond' service has also been added to the existing webpages.</li> <li>▶ The existing website achieved a higher rating in the 2012 peer review than the previous year.</li> </ul>	2012+	

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21	<b>Measure M21:</b> DCC will continue its work to increase uptake and implementation of School and Workplace Travel Plans, particularly where likely to impact on the AQMA	<p>↑ ► DCC to ensure all relevant commercial planning applications have travel plan conditions applied in accordance with current best practice.</p> <p>► DCC to produce Travel Plan Strategy which:</p> <p>► Details procedure for tracking &amp; possible requirement for enforcement of planning conditions requiring travel plans.</p> <p>► Details procedure for Travel Plan Information storage at DCC</p>	<p>► DCC City Development Department, (Planning Division, Transportation Division)</p> <p>► DCC Education Department</p>	See Measure 3- Behavioural Change Primary School programme to promote sustainable travel options in all primary schools in Dundee	2013	<p>► Develop Business Case for Travel Co-ordinator &amp; identify potential funding streams.</p> <p>► Number of new travel plans (need to show in terms of walking cycling - % of journeys saved).</p> <p>► Identify &amp; report on any Air Quality related Travel Plan targets from travel plan strategy and any relevant Travel Planning Team targets.</p> <p>► Promotion of Travel Plan initiatives e.g. Sustrans' Travel Smart</p> <p>► Implement &amp; regularly review Travel Plan Strategy</p>	Small	<p>► Work in 2011 has focussed on reducing the impacts of school traffic on the Lochee Road hotspots. (See AQAP 2012 Appendix 1)</p> <p>► Further work to promote sustainable travel in primary schools across Dundee is scheduled for 2012.</p> <p>► DCC is working to create a full-time temporary travel planning officer post.</p> <p>► Planning applications for significant developments are required to submit travel plans. The submission of travel plans is actively pursued and are approved, if appropriate.</p>	Investigating development of city wide programme of pupil involvement (P5 - 7) in travel behaviour change. Education Department to be encouraged to refresh all school travel plans	2012+	

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22	<b>Measure M22:</b> DCC will continue working in partnerships with TACTRAN and local active travel networks to ensure that walking and cycling initiatives are promoted and supported in Dundee	<ul style="list-style-type: none"> <li>▶ Identify walking &amp; cycling schemes (such as Park &amp; Cycle).</li> <li>▶ Identify walking &amp; cycling promotional opportunities around Dundee City</li> </ul>	DCC City Development (Transportation Division)	Transportation Division have submitted funding bids to Sustrans for FY13/14	2011+  2013/14	<ul style="list-style-type: none"> <li>▶ Number of walking and/or cycling initiatives in operation.</li> <li>▶ Establish the use of cycle monitoring counts at key points on cycle routes</li> </ul>	Small	<ul style="list-style-type: none"> <li>▶ Get Cycling engaged to undertake promotion of cycling</li> <li>▶ Positive Steps to take forward Dundee Travel Active Personal Travel Plans in Broughty Ferry.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Get Cycling have delivered Bike Boost.</li> <li>▶ Positive Steps implemented Dundee Travel Active Personal Travel Plans in Broughty Ferry</li> <li>▶ Cycle to Work Scheme being promoted during August 2012</li> <li>▶ City Engineer currently implementing major cycling scheme at Douglas Terrace</li> </ul>	2012+	
23	<b>Measure M23:</b> DCC will continue to work with transport providers to support and promote increased uptake of public transport modes	<ul style="list-style-type: none"> <li>▶ Promote schemes such as the SQUID card including Dundee and surrounding towns.</li> <li>▶ Introduce smart and integrated ticketing</li> </ul>	▶ DCC City Development (Transportation Division)	SMART Ticketing to Go Live early 2013	2011+  2013	<ul style="list-style-type: none"> <li>▶ % uptake schemes</li> <li>▶ Passenger numbers</li> </ul>	Small	The development of Smart Card based integrated ticketing (National Entitlement Card) is being undertaken by DCC, National Express and Transport Scotland. Initial products are expected to appear from Autumn 2012	Dundee City Council is working with Transport Scotland to ensure that the technical issues delaying implementation are overcome. This matter is now has the support of the Scottish Cities Alliance with a view to proof of concept for a Scottish roll out. Initial smart ticketing to go live early 2013. National Express Dundee have now commenced pilot with Dundee College. DCC commenced discussion with other transport operators in support of the Scottish Cities Alliance priority for smart ticketing	2012+	

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24	<b>Measure M24:</b> DCC will continue to work in partnership with other organisations to promote and implement energy efficiency measures in Dundee	► To implement an Annual Action Plan of energy efficiency measures.	► DCC City Development (Property Division)	The re-introduction of the Carbon Management Action Plan	2011+	► Implementation of Annual Energy Efficiency Action Plan. ► Report reductions in energy use	Small	The Climate Change Board is considering the re-introduction of the Carbon Management Action Plan.	The Climate Change Board are considering the re-introduction of the Carbon Management Action Plan	2012+	

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<b>MEASURES SECURING AIR QUALITY BENEFITS THROUGH STATUTORY FUNCTIONS</b>											
25	<b>Measure M25:</b> DCC Environment Department will comment upon planning applications to ensure that all relevant air quality issues are highlighted and mitigation measures are considered wherever possible	► The Environment Department (Environmental Protection Division) will continue to work with City Development (Planning Division) as Statutory Consultees	► DCC City Development Department (Planning Division)  ► DCC Environment Department	See Measure 10 regarding the introduction of Supplementary Planning Guidance		► Total number of planning applications responded to in each calendar year (changed from financial year)  ► Percentage of the total planning applications responded to with air quality conditions/ assessments	Small	► Environment Department Officers check weekly planning lists and comment on all applications which may adversely impact on local air quality  ► 19 planning applications responded to.  ► 16% had air quality conditions/ assessments (this included smoke control area informatives)	► Environment Department Officers commented on:  ► 13 planning applications in 2012.  ► 38% of the planning applications determined in the calendar year had air quality conditions.	n/a	Mitigation measures to be conditioned as appropriate.
26	<b>Measure M26:</b> DCC will enforce statutory legislation to control smoke, dust, fumes or gas emissions from commercial and domestic premises which are causing a nuisance or are prejudicial to health	► DCC will continue to monitor and enforce statutory legislation in this area	► DCC Environment Department.			► Number of relevant complaints in each financial year.  ► % resolved	Small	► For period in 2010-11 financial year (01/01/11-31/03/11) a total of 15* relevant complaints were investigated of which 93% were resolved.  ► For period in 2011-12 financial year (01/04/11 - 31/12/11), a total of 26** relevant complaints were investigated of which 69% had been resolved by 31/12/2011.	In 2012, officers investigated 21 relevant complaints, of which 90% were resolved	n/a	
<p>Measure 26</p> <p>* Of the 15 complaints, 5 involved smoke from the chimney of a domestic property, 1 related to domestic bonfire smoke, 3 involved smoke from commercial / agricultural / construction bonfires, 5 involved construction / demolition dust and 1 involved emissions from an industrial premises.</p> <p>** Of the 26 complaints, 10 involved smoke from the chimney of a domestic property, 10 involved smoke from a domestic bonfire, 4 involved smoke from commercial / agricultural / construction bonfires, and 2 involved construction / demolition site dust.</p> <p><b>Note:</b> In future targets/indicators will be per calendar year.</p>											

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27	<b>Measure M27:</b> DCC will enforce relevant legislation to reduce the burning of commercial and domestic waste	► DCC will continue to monitor and enforce legislation in this area	► DCC Environment Department			► Number of relevant complaints ► % resolved	Small	► 1 complaint of the burning of commercial waste was investigated under the Environmental Protection Act 1990 (EPA) Section 33 requirements which was resolved.  ► 7 complaints of smoke from commercial bonfires were investigated under EPA Section 79 and Clean Air Act legislation  ► 11 complaints of smoke from the burning of domestic waste (domestic bonfires) were investigated under EPA Section 79 and Clean Air Act legislation in 2011 of which 94% of these complaints had been resolved by 31/12/2011	In 2012 Officers dealt with 9 complaints of smoke from commercial bonfires and 17 complaints of smoke from the burning of domestic waste. 92% of these complaints were resolved.	n/a	
28	<b>Measure M28:</b> DCC will promote composting in a bid to reduce pollution from domestic bonfires	► Reintroduce discount/promotion campaign for compost bins	► DCC Environment Department	The area Zero Waste Scotland Volunteer Co-Ordinator continues to help promote the home composting message across Dundee. DCC staff continue to utilise educational talks etc. to reaffirm the message	2011+	► % uptake composting bins	Small	► The existing Waste Resources Action Programme (WRAP) subsidised discount compost bins ended due to funding cuts in March 2011 with a total of 5243 discounted bins being sold in the DCC area in the period between 2006 and end 2010 representing 2% of the total discounted bins for Scotland. The promotion of home composting continues under the Zero Waste Scotland campaign banner with a Recycling Projects Officer employed in the Environment Department.  ► Composting is undertaken at the Environment Department's green waste processing facility at Riverside Drive. 37,526 brown bins for garden waste have been issued.	The area Zero Waste Scotland Volunteer Co-Ordinator continues to help promote the home composting message across Dundee. DCC staff continue to utilise educational talks etc. to reaffirm the message	2012+	

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29	<b>Measure M29:</b> DCC will continue to monitor a range of air pollutants throughout Dundee and make the monitoring information freely available to the public in an easily understandable form	▶ Continued support for Dundee Air Quality Monitoring Network	▶ DCC Environment Department.			<ul style="list-style-type: none"> <li>▶ Number of monitoring sites</li> <li>▶ Identification of sites in new hotspots</li> <li>▶ Monitoring data via DCC website</li> </ul>	n/a	<ul style="list-style-type: none"> <li>▶ The Council currently have one real-time background monitoring site (Mains Loan), and real-time monitors located in the following seven hotspot locations: Victoria Road, Meadowside, Logie Street, Lochee Road, Seagate, Union St and Whitehall St.</li> <li>▶ One new real-time monitoring site added in 2011 for PM<sub>10</sub> and NO<sub>2</sub> in hotspot area (Meadowside).</li> <li>▶ 2 additional PM<sub>10</sub> "reference equivalent" analysers installed at hotspot locations in Lochee Road and Seagate in 2011.</li> <li>▶ New NOx analyser installed at background location in 2011.</li> <li>▶ Currently 98 NO<sub>2</sub> diffusion tube sites across the city. Located at busy roads and junctions and a number of background locations. 14 new diffusion tube locations added in 2011.</li> <li>▶ One potential new hotspot identified for NO<sub>2</sub> in Strathmore Avenue based on 2009 data. Additional tubes deployed in the area in 2011.</li> <li>▶ Ratified data for 2011 required before any new hot-spots can be determined</li> <li>▶ See Measure 20 re monitoring data on the website</li> </ul>	The Council currently have one real-time background monitoring site (Mains Loan), and real-time monitors located in the following locations: Broughty Ferry Road, Meadowside, Logie Street, Lochee Road, Seagate, Union Street, Whitehall St, Albert Street/Arbroath Road, Myrekirk Terrace and Stannergate. The monitors at Albert Street/Arbroath Road, Myrekirk Terrace and Stannergate were installed at these locations in September 2012. Currently there are 99 NO <sub>2</sub> diffusion tube sites across the city. These are located at busy roads and junctions, and at a number at background locations. 2 new NO <sub>2</sub> diffusion tube locations were added in 2012 while one 2011 diffusion tube site has been stopped in 2012. One 2011 site has been moved at it's location due to infrastructure changes. The Air Quality pages of the DCC website are currently being upgraded with links to current and historical monitoring data to be included within the final version.	n/a	

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30	<b>Measure M30:</b> DCC will ensure that all air quality monitoring data reported to the public is both accurate and precise by implementing quality control measures	<ul style="list-style-type: none"> <li>▶ Regular calibrations and filter changing of continuous monitoring equipment in DCC's air quality stations</li> <li>▶ At least annual audit of air quality stations' equipment</li> <li>▶ Appropriate use and care of NO<sub>2</sub> diffusion tubes regularly deployed around the City Council area.</li> </ul>	▶ DCC Environment Department/ Tayside Scientific Services	Develop Database to enable DCC staff to better manage large volume of AQ data and make it more readily available to stakeholders	2013/14	<ul style="list-style-type: none"> <li>▶ QA/QC measures adopted</li> <li>▶ Auditing reports</li> </ul>	n/a	<ul style="list-style-type: none"> <li>▶ External consultant undertakes calibrations and filter changing of the continuous monitoring equipment in the air quality monitoring stations.</li> <li>▶ Osiris meters - indicative PM<sub>10</sub> meters - filter change undertaken on quarterly basis and annual calibration.</li> <li>▶ Audits of continuous monitoring stations' equipment undertaken by external consultants and auditing reports received.</li> <li>▶ Public Analyst participates in Workplace Analysis Scheme for Proficiency (WASP) Scheme and field inter-comparison study.</li> </ul>	External consultants undertake calibrations and filter changing of the continuous monitoring equipment in the air quality monitoring stations. Osiris meters - indicative PM <sub>10</sub> meters - filter change undertaken on quarterly basis and annual calibration. Audits of continuous monitoring stations; equipment undertaken by external consultants and auditing reports received. Public Analyst participates in Workplace Analysis Scheme for Proficiency (WASP) Scheme and field inter-comparison study.	n/a	
31	<b>Measure M31:</b> DCC will establish additional monitoring sites across the City in locations where poor air quality is suspected	▶ DCC will continue to carry out and report on their statutory duties under the Review & Assessment process for LAQM	▶ DCC Environment Department	A review of the diffusion tube locations was undertaken in 2012 and 21 new sites identified as requiring monitoring during 2013	2013	<ul style="list-style-type: none"> <li>▶ Poor air quality sites identified monitored and dealt with through the process of Review &amp; Assessment.</li> <li>▶ Additional monitoring sites established as and when required</li> </ul>	n/a	▶ See Measure 29	▶ See Measure 29	n/a	<ul style="list-style-type: none"> <li>▶ The potential new hotspot identified for NO<sub>2</sub> in Strathmore was assessed and it was determined that monitoring with the additional tubes in the area could cease..-</li> </ul>
32	<b>Measure M32:</b> DCC will implement road traffic counts to inform the review and assessment process.	▶ Undertake classified traffic counts	▶ DCC Environment Department			▶ Classified traffic counts undertaken	n/a	Classified Traffic Counts Undertaken at 18 junctions in 2011.	Classified Traffic Counts undertaken at 18 junctions in Sept 2012	On-going	